

REMARKS/ARGUMENTS

Claims 1-31 are cancelled. Claims 32-62 are new. Claims 32-62 are pending in the application. The amendments to the claims as indicated herein do not add any new matter to this application. Furthermore, amendments made to the claims as indicated herein have been made to exclusively improve readability and clarity of the claims and not for the purpose of overcoming alleged prior art.

I. ISSUES NOT RELATED TO PRIOR ART

The Office Action requested that page 1 of the Specification to include the serial number of the related application. Applicants filed a Preliminary Amendment on April 16, 2004 amending the reference to the related application to include the serial number.

Claims 32, 37, 44, 51, 58, and 60 were objected to for various informalities. Each issue raised with respect to these informalities has been addressed.

Claims 51-57 stand rejected under 35 U.S.C. § 101 as allegedly being directed to non-statutory subject matter. As instructed in the Office Action, Claim 51 has been amended to recite "A computer-readable medium, tangibly embodied on a physical storage medium, carrying one or more sequences...." Each of the dependent computer-readable medium claims, by virtue of their dependency, recites the "tangibly embodied" language. Therefore, removal of the 35 U.S.C. § 101 rejection with respect to Claims 51-57 is respectfully requested.

II. ISSUES RELATING TO CITED PRIOR ART—BROMAN, THURSTON,  
BRODKORB

Claims 32-62 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 36,754,858 to Broman et al. ("*Broman*") in view of U.S. Patent Application Publication No. 2003/0217193 A1 to Thurston et al. ("*Thurston*"), and further in view of U.S.

Patent Application Publication No. 2004/0133875 A1 to Brodkorb et al. ("*Brodkorb*"). This rejection is respectfully traversed.

The Office Action originally cited U.S. Patent Publication No. 2004/0133875 A1 to Kramer et al. ("*Kramer*") instead of *Brodkorb* when rejecting all the claims. However, the Office Action only applies portions of *Brodkorb* to claim 32 (Office Action, page 6) and does not refer to *Kramer* in the rest of the Office Action. Therefore, this reply only addresses *Brodkorb*)

A. CLAIM 32

Present Claim 32 recites:

A method of a development and build environment **for packaged software delivery in a distributed network of nodes**, the method comprising the computer-implemented steps of:

compiling source code files into executable file modules;

**wherein each of one or more modules contains an image for a process or a dynamically linked library (DLL);**

creating a software package that comprises the one or more modules, wherein the software package is delivered to the nodes in the distributed network;

wherein the software package is created based on at least one of a feature, characteristic, or purpose;

creating metadata for a first module, of one or more modules, that includes any module information such as the first module's: binary signature, name, directory path, and characteristics;

inserting the metadata of the first module into the software package; and

**gathering application program interface (API) dependency information for the first module, wherein the first module can provide and use at least one API, by**

**(a) receiving a list of dependent modules for a given process or DLL module of the first module;**

- (b) storing, in the metadata of the first module, dependency information for the dependent modules in the list, wherein the dependency information includes API names and versions that the process or DLL module depends on;
- (c) collecting additional dependency information documented in one or more additional modules specifications, wherein the additional dependency information includes API names and versions that the process or DLL module depends on; and
- (d) storing the additional dependency information in the metadata of the first module.

1. *The cited art fails to teach or suggest the recited gathering step*

The Office Action admits on pages 5-6 that *Broman* **fails to disclose the recited gathering step and steps (a) and (b) of Claim 32**. The Office Action then cites paragraphs 8, 9, and 39-41 of *Thurston* for allegedly disclosing the recited gathering step and steps (a) and (b) (Office Action, page 6). This is incorrect. The only support the Office Action gives is: “However, Thurston, more specifically disclosed metadata [0008-0009] to control installations and dependency information placed into ‘constraints’ that must be satisfied [sic?] into a header. See FIG. 4. Thurston disclosed ‘metadata’ held in header files [0039-0041], including version number, names of dependent devices, size and checksums, and digital signature.”

Even if *Thurston* disclosed “dependency information placed into ‘constraints’”, *Thurston* fails to teach **gathering API dependency information** for a first module in a software package. *Thurston* lacks any teaching or suggestion of **API dependency information**, much less how such dependency information is **gathered**. Claim 32 recites that API dependency information is gathered by:

- (a) receiving a list of dependent modules for a given process or DLL module; [and]

- (b) storing, in the metadata of the first module, dependency information for the dependent modules in the list, wherein the dependency information includes API names and versions that the process or DLL module depends on.

Thurston fails to teach or suggest anything about APIs. Furthermore, the Office Action fails to cite any part of *Thurston* that describes the claimed “list of dependent modules” and “given process or DLL module”.

The Office Action seems to contend that the “first module” of Claim 32 is the “firmware update package 108a” of *Thurston*, because the Office Action identifies the “metadata” of *Thurston*, the firmware update package of *Thurston* includes metadata, and the “metadata” recited in Claim 32 is for the first module. However, in addition to metadata, the firmware update package includes a firmware image for installation. The metadata in the firmware update package includes:

- (a) a **header**, which includes a name of a device dependent plug-in module that is invoked by a firmware update application to interpret the dynamic constraints specified in the header (paragraph 9); and
- (b) **dynamic constraints** (paragraphs 8 and 9), which may indicate:
  - (32) a version of a firmware upgrade in the firmware update package (paragraph 42),
  - (33) a minimum version number of an already installed firmware on a hardware device (see FIG. 4 and Claim 5), and
  - (34) a version of the firmware update application that is capable of initiating the interpretation of dynamic constraints (see FIG. 4 and Claim 5).

The device dependent plug-in module named in the header portion of the firmware update package is specific to a particular hardware device (paragraph 35). But *Thurston* fails to

provide gathering **API dependency information for the firmware update package** and fails to describe a firmware software package that can **provide and use** at least one API. In *Thurston*, no API dependency information is gathered for the firmware update package and the firmware update package does not provide any APIs.

Nothing in *Thurston* describes the claimed **list of dependent modules** that a given process or DLL module of the firmware update package (i.e., the alleged first module) is dependent on. Indeed, neither the header nor the dynamic constraints portion of the firmware update package indicates a **list of dependent modules** for the recited process or DLL module. Even if dependency information were stored in the metadata of a firmware update package, *Thurston* fails to teach or suggest anywhere that such dependency information “includes **API names and versions that the process or DLL module depends on**”, as recited in Claim 32.

2. *Broman fails to teach or suggest a “development and build environment for packaged software delivery in a distributed network of nodes”*

The Office Action cited col. 4, lines 65-66 and col. 20, lines 52-63 of *Broman* for disclosing “a development and build environment for packaged software delivery in a distributed network of nodes.” Later, the Office Action on page 5 equates the application project 54 of *Broman* with the recited software package. As the cited portions of *Broman* indicate, *Broman* describes how a custom application project generator 52 is created in order to generate an application project 54. In order to read on Claim 32, **the application project 54 would have to be delivered to nodes in a distributed network**. However, col. 20, lines 52-63 of *Broman* merely states that “a collection or library of custom application project generators...can be distributed to users on a computer readable storage medium, or alternatively made available for access over a computer network.” Thus, *Broman* teaches that the custom

application project generator 52 is made available for access over a network, and **not** that the **application project 54 is delivered** to nodes in a distributed network.

3. *Broman fails to teach or suggest that a module contains an image for a process or a DLL*

The Office Action cites col. 6, lines 27-32 of *Broman* for disclosing dynamically linked libraries. However, Claim 32 recites that “a module contains an image for a process or a dynamically linked library (DLL).” The cited portion of *Broman* merely states: “A linker then links the object code files and .RES files together into a... (“DLL”) type program. The custom application project generator 52 in the form of a .DLL file contains the compiled code from the source files, as well as the dialog resources 68 and the templates 70.” From the cited portion of *Broman*, the Office Action appears to contend that the custom application project generator 52 is the claimed DLL. But on page 5 the Office Action equates the application project 54 with the “software package” of Claim 32 that includes a module. Based on the reasoning of the Office Action, application project 54 would have to comprise a module that contains an image for the custom application project generator 52. Not only does *Broman* clearly not teach that the application project 54 comprises a module that contains an image for the custom application project generator 52, such a correlation does not make sense since it is the **custom application generator 52 that generates the application project 54**.

4. *Broman cannot be combined with Thurston*

MPEP § 2143 provides three requirements for a *prima facie* case of obviousness. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the

claim limitations. The Office Action asserts no reasonable suggestion or motivation in either reference or in the knowledge generally available to one of ordinary skill in the art **to modify *Broman* or to combine the teachings of *Broman* and *Thurston*.**

The Office Action states that “it would have been obvious...to modify *Broman*’s invention to include additional details in the component header such as names, versions, and dependency constraints, as disclosed by *Thurston*, because such information contained in a header file as meta data is useful for conveying relevant information when delivering software for installation” (page 7). The Office Action then asserts that *Thurston* contains a motivation: “*Thurston* was motivated (*Thurston*-[0010]) to provide updates to support new and different types of devices in a manner to simplify development and maintenance.” Applicants respectfully disagree. As stated above, *Broman* is directed to providing a mechanism for creating a **custom application project generator** that can be used to **generate specific application programs**. Nothing in *Broman* is related to software package **delivery**, much less software package delivery **to nodes in a distributed network**, as Claim 32 recites. Therefore, it would not have been obvious to one of ordinary skill in the art at the time of the invention to combine *Broman* and *Thurston*.

#### B. INDEPENDENT CLAIMS 37, 44, 51, AND 58

Independent Claims 37, 44, 51, and 58 are similarly allowable because they include some of the same features discussed above with respect Claim 32.

#### C. DEPENDENT CLAIMS

Each of Claims 33-36, and 38-43, and 45-50, 52-57, and 59-62 is dependent upon one of independent Claims 32, 37, 44, 51, and 58. By dependency, each of Claims 33-36, and 38-43, and 45-50, and 52-57, and 59-62 includes some of the same features discussed above with

respect to Claim 32. Therefore, each of Claims 33-36, and 38-43, and 45-50, and 52-57, and 59-62 is allowable for the same reasons discussed above for Claim 32.

### III. CONCLUSION

For the reasons set forth above, it is respectfully submitted that all of the pending claims are now in condition for allowance. Therefore, the issuance of a formal Notice of Allowance is believed next in order, and that action is most earnestly solicited.

The Examiner is respectfully requested to contact the undersigned by telephone if it is believed that such contact would further the examination of the present application.

Please charge any shortages or credit any overages to Deposit Account No. 50-1302.

Respectfully submitted,

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